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## Development of a mathematical model of hydroerosive wear in piston couples of hydraulic machines: Part 2

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### Abstract

© 2014, Allerton Press, Inc. The paper presents a definition of hydroerosive wear that occurs in hydraulic machines due to the presence of water or air in a fluid that was used in the mathematical model. As is indicated by the complex of equations obtained by conversions, the relationship between the velocity of the hydroerosive wear of piston couples and the presence of water in fluid is exponential. In addition, the wear velocity is determined to be directly proportional to the presence of air inside of the hydraulic system and inversely proportional to the pressure achieved by the pump.

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### Keywords

air, fluids, hydraulic machines, hydroerosive wear, math model, piston couples, water